

# Pegaso<sup>3</sup>: An Interactive Multimedia Installation by Gruppo Làbun

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## ABSTRACT

Gruppo Làbun, made up of Vincenzo D'Angelo, Stefano Fumagalli and Alessandro Perini, is an Italian trio interested in research in the field of electronic and contemporary music, especially in establishing relationships between music and other artistic disciplines. This paper provides a description of *Pegaso<sup>3</sup>*, an interactive multimedia installation by Gruppo Làbun, based on the sculpture *Pegaso* by Paolo Minoli. The installation makes use of sound and colored lights in order to define an artificial environment that can be modified by visitors. As a matter of fact, people can navigate the boundaries between space and light and sound simply by interacting with three theremins (i. e. antennas used as musical instruments, invented in the beginning of the 20<sup>th</sup> century). The environment defined by users' interaction surrounds both the audience and the sculpture, with coherent reference to Minoli's idea about the interaction of sculptural works with the landscape, expanding the potentials of this relationship.

## Author Keywords

Interaction, Multimedia, Art Installation, Sound and Color, Perceptual Boundaries Navigation

## ACM Classification Keywords

Sound and Music Computing, User Interfaces.

## INTRODUCTION

*Pegaso<sup>3</sup>* is an interactive multimedia installation planned and carried out by Gruppo Làbun, and dedicated to Paolo Minoli, an Italian artist who died in December 2004. The work premiered in Cucciago (in northern Italy) on December 20, 2005, exactly a year after Minoli's death; the exhibition lasted until January 8, 2006. The event took place in the small Romanesque church of San Vincenzo, thanks to the collaboration of Casaperlarte – Fondazione Paolo Minoli and Associazione "1612 Suoni". *Pegaso<sup>3</sup>* is the product of research by Gruppo Làbun into the relationship of sound, color and space.

In PDC-06 Proceedings of the Participatory Design Conference, Vol II, Trento, Italy, August 1-5, 2006, under a Creative Commons License. CPSR, P.O. Box 717, Palo Alto, CA 94302. <http://www.cpsr.org> ISBN 0-9667818-4-8



Figure 1. Visitors inside the installation *Pegaso<sup>3</sup>*.  
Cucciago (Italy), December 20, 2005.

## THE CONCEPT

The installation *Pegaso<sup>3</sup>* draws inspiration from a series of works by Minoli based on the correspondence between color and the pitch of sound. It refers to a method of chromatic translation conceived by Luigi Veronesi. Specifically, a relationship between the sound spectrum and the light spectrum is established by locating three fundamental colors (red, green and blue) and then segmenting the continuum of pitch sensation in three ranges (low, medium and high).

The title *Pegaso<sup>3</sup>* (pronounced "Pegaso cubed") refers to the three levels (or channels) of communication on which the installation is based: space, light, sound. Yet, each of them represents a continuum segmented into three parts that are profoundly connected with one another: three spots in

space, three colors, and three sound ranges. In this sense, the “cubing” is intended as an expansion of the sculpture’s potentials.

The satined steel sculpture “Pegaso”, by Paolo Minoli, is placed in the middle of the installation. Audio and light diffusion systems steep the sculpture in an artificial landscape of light and sound. Visitors can modify the landscape through three interactive terminals (theremins). Based on interaction time, the installation responds through each terminal, while colored light and sound spread around. Consequently, when interaction is equal to zero the sculpture is surrounded by half-light and silence, but people can cause lights and sounds to appear gradually. The more motion occurs, over time, around a certain interactive terminal, the more intense the assigned colors and sounds become.

### REDUCING AND EXPANDING BOUNDARIES

*Pegaso*<sup>3</sup> narrows the boundary between two different approaches to chromatic research: the first concerns variations of black/white/grey light, typical of Minoli’s sculpture; the second involves the phases of primary color combination, typical of his pictorial works. Indeed, *Pegaso* mirrors the paradigm of a sculpture that establishes relationships with the landscape: the light stream of the environment interacts with its reflecting surfaces, generating different grey tones [1]. The *Pegaso*<sup>3</sup> installation overcomes the limits of a natural and static landscape while favoring a new, dynamic, abstract and artificial landscape reconstructed by the visitors. What are the boundaries of this new landscape? On the one hand, the absence of interaction results in half-light and silence. On the other hand, the simultaneous and protracted interaction through the three terminals corresponds to a continuous

accumulation and intensification of light and sounds, making possible an ideal approach to the concept of “white”. White means both white light and white noise, the sum of all the possible frequencies (both acoustic and visual). But it also means *unlimited-infinite* (the number of frequencies of the light and sound continuum) sealed in a *finite limit*, the limit of our perception.

Ultimately, the *Pegaso*<sup>3</sup> installation can be thought of as a route that develops within these limits. By recalling tri-dimensional space and allowing combinations between the segmentations of the chromatic/sound continuum, it provides experience of all the degrees of proximity to unlimited-infinite.

A more detailed analysis of the installation can be found in [2]. Some photos and additional material can be found on Gruppo Låbun’s website [3].

### ACKNOWLEDGMENTS

The author thanks Dante Tanzi, Philip Grew and Erica Tettamanti. The photo in Figure 1 is by Davide Berri. *Pegaso* is a sculpture by Paolo Minoli, property of Casaperlarte – Fondazione Paolo Minoli.

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